



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/578,071  | 05/02/2006  | Willem L. Ijzerman   | GB 030200           | 5032             |
| 24737 7590 01/07/2009<br>PHILIPS INTELLECTUAL PROPERTY & STANDARDS<br>P.O. BOX 3001<br>BRIARCLIFF MANOR, NY 10510 |             |                      |                     |                  |
| EXAMINER<br>HEYMAN, JOHN S  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 2871  |             |                      |                     |                  |
| MAIL DATE   |             | DELIVERY MODE        |                     |                  |
| 01/07/2009  |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/578,071

**Applicant(s)**

IJZERMAN ET AL.

**Examiner**

JOHN HEYMAN

**Art Unit**

2871

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 13, 15-18 and 21-25 is/are rejected.
- 7) ☒ Claim(s) 3-9, 11, 12, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In view of the arguments and claim amendments made in the Response of 06/19/2008, the Rejections made in the first Office Action are hereby withdrawn. However, these claims remain unpatentable in view of the following rejections on references found in an updated prior art search.

#### ***Claim Rejections - 35 USC § 112***

2. Claims 18 and 23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent basis for "one portion" recited in line 7 of Claim 18 and line 8 of Claim 25. Layers *per se* have no portions so that this recitation is unclear. In Claim 23, there is no antecedent basis for "said regions" in line 2. Corrections are required.

#### ***Claim Rejections - 35 USC § 103***

3. Claims 1, 2, 10, 13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Putilin (US 2002/0018158) in view of Hiyama et al (Hiyama - US 6,222,598). Looking at Fig. 1 of Putilin and comparing it with Claim 1, a display panel 14 is shown with a waveguide 2 comprising a first face 12 arranged to receive light from light source 5, an exit face at 3 configured so that light enters through first face 12 and then scattered (para. 33) when exiting through exit face at 3 to thereby illuminate panel 14. Not shown by Putilin is the plurality of portions of diffusive material located within the waveguide. This feature is shown in Fig. 12 of Hiyama. That is, a waveguide 230 is shown with a plurality of portions of diffusing material 232 located within the waveguide.

It would have been obvious to employ the waveguide of Hiyama with the plurality of diffusive material in the waveguide of Putilin for the reason given in Hiyama, namely, to provide substantially uniform intensity of the light propagation direction (col. 11, line 30) to thus render Claim 1 unpatentable under 35 USC 103. The light leaving waveguide 230 in Hiyama forms a pattern of light lines to meet the limitation of Claim 2.

4. Regarding Claim 10, note reflective surface 233 in Fig. 12 of Hiyama or reflective surface 15 in Putilin to meet the limitation of this claim.

5. Regarding Claims 13 and 15-17, note display panel 1 and an illumination system 5 in Putilin to render obvious Claim 13; and para. 2 of Putilin that discloses that his invention "relates generally to optical systems that employ holograms as optical elements" which is seen to include a communication device as recited in Claim 15; a computing device as recited in Claim 16; and an audio/visual device as recited in Claim 17 to thus meet these claims under 35 USC 103. See, for example, col. 1, line 17 in Putilin.

***Claim Rejections - 35 USC § 102***

6. Claim 18, insofar as definite, is rejected under 35 U.S.C. 102(b) as being anticipated by Hiyama, cited above. Looking at Fig. 12 of Hiyama, a method of presenting an image comprises displaying an image on display panel 250; and illuminating the display with a light source 210 and a waveguide 230 wherein the waveguide comprises diffusive material 232 which is optically set (col. 11, line 23).

***Claim Rejections - 35 USC § 103***

7. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiyama, above. Column 6, line 63 *et seq.* of Hiyama explains how holograms (3D images) can be produced to meet Claim 21, which obviously includes 2D images to meet Claim 22 to thus render obvious these claims. Col. 7, line 17 explains controlling the diffused state or not of the hologram to thus meet the "switching said regions" limitation (insofar as definite) of Claim 23.
8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiyama as applied to claim 21 above, and further in view of Tomono, (US 2003/0067563) of record. Not disclosed by Hiyama is the method of displaying a 3D and a 2D image on two areas of a display as recited by this claim. Tomono discloses this feature in paragraph 9 therein. It would have been obvious to apply the teaching of Tomono in Hiyama for the reason given in Tomono, namely, to improve video information in communication devices (Abstract of Tomono).

***Allowable Subject Matter***

9. Claims 3-9, 11, 12, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. Claim 14 remains allowable as indicated in the First Office Action. Similarly, upon the technical deficiency of Claim 25 being overcome, this claim remains allowable.

***Conclusion***

11. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record nor uncovered to date show: switched states of portions of diffusive material located within a waveguide of a light source as recited in Claim 3-9; or where the diffusive material within the waveguide is a liquid crystal material as recited in Claim 11-12; or a step of setting optical properties by applying a potential difference across a portion of the diffusive material as recited in Claims 19-20. As such, the subject matter of these claims is allowable over the prior art upon the above rejections and/or objections being overcome.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN HEYMAN whose telephone number is (571)272-5730. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571- 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Heyman/  
Examiner, Art Unit 2871